DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-028114 Address: 333 Burma Road **Date Inspected:** 01-Aug-2012

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1930 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

CWI Name: See Below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** OBG/Tower

Summary of Items Observed:

At the start of the shift this Quality Assurance Lead Inspector (QAI) traveled to the SAS project site and observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) Quality Control (QC) personnel. The observations and inspections were performed as noted below:

A). This Quality Assurance Lead Inspector (QALI) assigned the QA Inspectors to the following, but not limited to the work station(s) listed, to observe the welding and the QC inspection of the following:

Rodney Patterson-OBG W14 (Observation of welding, QC inspection and testing of the longitudinal diaphragm stiffener), OBG Field Splice W13/W14 (Observation of welding, QC inspection and testing of deck stiffener flange at the longitudinal stiffener identified as LS1) and OBG W13 Drop-In (Observation of excavation, repair welding, QC inspection and testing).

Fritz Belford-OBG W12 Drop-In Assembly (Observation of welding, QC inspection and testing) and QA VT/MPT/UT verification.

Doug Frey-OBG Field Splice E12/E13 (Observation of welding, QC inspection and testing of edge plate and deck stiffener flanges), E12 Corner Drop-In Ass'y(Observation of welding, QC inspection and testing of longitudinal and transverse field splices) and Lifting Lug Removal (Observation of welding, QC inspection and testing of the Rib Stiffener "B").

Matt Daggett-Tower Saddle Housing/Grip Plates(Observation of assembly fit-up, welding, QC inspection and

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testing)

William Clifford-Tower Shear Plates/ESW "P" & "Q"(Observation of excavations, repair welding, QC inspection and testing) and QA/MPT verification of excavations.

NOTE: See QA daily Weld Inspection Reports (WIR) and NDE reports for additional information and details.

Quality Assurance Lead Inspector (QALI) Summary

This QA Lead Inspector (QALI) observed the QA Inspector's Joselito Lizardo, William Clifford, Rodney Patterson and Fritz Belford and Matt Daggett monitor the work performed by the QC inspectors at random intervals and also observed the QA Inspectors verify the welding parameters, the minimum preheat and the maximum interpass temperatures for compliance with the contract specifications. The QAI's utilized a Fluke 337 clamp meter to measure the electrical welding parameters, Tempil Heat Indicators and/or a Fluke 63 IR Thermometer for verifying the preheat and interpass temperatures. At the conclusion of the shift, this QA Lead Inspector discussed and reviewed the work performed by the QAI's in regards to the various observations and the verifications of the WPS's, consumables, welding parameters, preheat and interpass temperatures. The QAI observations of the QC inspection and verification of the welding parameters performed on this date appeared to comply with the contract specifications and no issues were noted during this shift.

This QA Lead Inspector commence the review of NDT reports, tracking of welding and developing and generating weld maps for W13 drop-in panels, E12 and W12 corner drop-in assemblies. This QA Lead Inspector also reviewed RWR documents for tracking purposes.

Summary of Conversations:

At the start of the shift, there were general conversations with Quality Control Lead Inspector, Bonifacio Daquinag, Jr., at the start of the shift regarding the location of welding, inspection personnel scheduled for this shift.

There were also, other pertinent conversations with QA Supervisor, William Levell, throughout the course of this shift in regards to scheduling of QA personnel, work progress and related structural steel and weld issues. There were no significant issues noted on this date. This QALI met with QA Supervisor, William Levell and Structural Material Representative (SMR) Bahjat Dagher and Bob Kick, ABF Operations Manager, Eric Blue, ABF Engineer, James Bowers, ABF Welding Quality Control Manager (WQCM) and QC Lead Inspector Bonifacio Daquinag, Jr. to review and discuss the spreadsheet document generated by ABF and the pertinent information entered.

Also, this QALI was informed by QA inspector, Fritz Belford, regarding the excessive root openings located at OBG W12 drop-in assembly weld joints identified as 12W-PP116.5-BW2 and 12W-PP115.5-BW2. At the conclusion of QA discussion regarding the issue it was determined that root openings did not exceed 20 mm allowed by the contract documents and would not require engineers approval.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for

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your project.

Inspected By: Reyes, Danny Quality Assurance Inspector

Reviewed By: Levell,Bill QA Reviewer